



Fri Dec 07 22:02:24 2001

IESNA:LM-63-1995

Photopia 1.5.0.20 PHOTOMETRIC REPORT

PROJECT: V22\_2 T8\_A

OPTIONS:

Spawning 1 rays for each reaction.  
Writing 250 rays to a DXF file.  
Random number generator seed: 8.  
Tracing 50 reflections.  
Stop tracing ray at 2.0% of initial magnitude.  
Tracing 499968 initial lamp rays.  
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens (%)	Reflection
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275( 4.8%)	0
292( 5.1%)	1
375( 6.6%)	2
319( 5.6%)	3
248( 4.4%)	4
227( 4.0%)	5
198( 3.5%)	6
173( 3.1%)	7
155( 2.7%)	8
135( 2.4%)	9
120( 2.1%)	10
109( 1.9%)	11
95( 1.7%)	12
88( 1.5%)	13
77( 1.4%)	14
70( 1.2%)	15
61( 1.1%)	16
55( 1.0%)	17
50( 0.9%)	18
44( 0.8%)	19
40( 0.7%)	20
36( 0.6%)	21
32( 0.6%)	22
30( 0.5%)	23
26( 0.5%)	24
23( 0.4%)	25
21( 0.4%)	26
19( 0.3%)	27
17( 0.3%)	28
15( 0.3%)	29
14( 0.2%)	30
12( 0.2%)	31
10( 0.2%)	32
10( 0.2%)	33
9( 0.2%)	34
8( 0.1%)	35
7( 0.1%)	36
6( 0.1%)	37
6( 0.1%)	38
5( 0.1%)	39
4( 0.1%)	40

4( 0.1%)	41
3( 0.1%)	42
3( 0.1%)	43
3( 0.1%)	44
2( 0.0%)	45
2( 0.0%)	46
2( 0.0%)	47
2( 0.0%)	48
1( 0.0%)	49
1( 0.0%)	50
3564( 62.5%)	Total

#### LUMENS ABSORBED BY SYSTEM:

Lumens (%)	Layer Name
187( 3.3%)	REFL-MASK
125( 2.2%)	TRAN-CAVITY
22( 0.4%)	REFL-SHOLDER1
93( 1.6%)	REFL-FAN2
14( 0.3%)	REFL-ENDS
67.( 1.2%)	REFL-FAN1
5( 0.1%)	REFL-SHOL_DIF
1343( 23.6%)	LAMP-F36-831
121( 2.1%)	LAMP-F36-832
0( 0.0%)	LAMP-F36-83A
128( 2.3%)	REFL-CAVITY_SIDEWALL
2110( 37.0%)	Total
Lumens (%)	Material
1465( 25.7%)	PHOSGLAS
335( 5.9%)	PERFE980
183( 3.2%)	ALMIRO02
125( 2.2%)	Gore 7five
2110( 37.0%)	Total

#### UNACCOUNTED LUMENS:

reached interreflection limit:	24.81 ( 0.4%)
fell below continuation minimum:	0.00 ( 0.0%)
could not find in/out refractor facet:	0.00 ( 0.0%)
reached try limit for scatter bounce:	0.00 ( 0.0%)
lost elsewhere(i.e. outside distrib):	0.00 ( 0.0%)

Number of Lamps: 2 Lumens per Lamp: 2850  
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00  
 Luminaire Width: 1.0000 Length: 3.9500 Height: 0.3539  
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	221	221	221	221	221
5.00	201	219	204	202	197
10.00	211	213	203	197	219
15.00	175	210	205	199	207
20.00	188	213	210	206	200
25.00	196	197	192	196	184
30.00	173	193	189	185	190
35.00	177	188	170	176	166
40.00	185	173	169	171	163
45.00	154	159	162	156	152
50.00	150	149	154	147	138
55.00	136	133	131	134	127
60.00	121	116	118	122	116
65.00	99.7	98.2	102	100	99.0
70.00	79.4	87.5	81.2	88.6	84.4
75.00	69.6	69.4	70.7	70.1	67.4
80.00	44.6	50.1	53.5	51.4	53.9
85.00	29.0	35.9	57.3	91.3	105
90.00	24.0	102	140	159	148
95.00	52.3	469	681	715	712
100.00	56.1	429	1037	1313	1353
105.00	71.1	311	877	1309	1463
110.00	89.0	223	762	1159	1236
115.00	92.8	178	545	996	1165
120.00	103	176	368	743	905
125.00	101	177	287	513	644
130.00	120	172	258	342	428
135.00	128	172	254	295	313
140.00	136	171	236	275	303
145.00	134	163	212	271	294
150.00	139	163	207	234	271
155.00	158	166	194	219	212
160.00	146	169	187	199	201
165.00	142	161	178	185	198
170.00	144	158	172	181	179
175.00	149	138	157	163	153
180.00	134	134	134	134	134

Zonal Lumens  
 Cone      Between      Lumens

0.0	0.0-	2.5	1.32
5.0	2.5-	7.5	9.83
10.0	7.5-	12.5	19.69
15.0	12.5-	17.5	28.56
20.0	17.5-	22.5	38.58
25.0	22.5-	27.5	44.86
30.0	27.5-	32.5	51.26
35.0	32.5-	37.5	55.52
40.0	37.5-	42.5	60.56
45.0	42.5-	47.5	61.05
50.0	47.5-	52.5	62.30
55.0	52.5-	57.5	59.46
60.0	57.5-	62.5	56.32
65.0	62.5-	67.5	49.65
70.0	67.5-	72.5	43.69
75.0	72.5-	77.5	36.89
80.0	77.5-	82.5	27.57
85.0	82.5-	87.5	34.31
90.0	87.5-	92.5	66.81
95.0	92.5-	97.5	306.74
100.0	97.5-	102.5	470.12
105.0	102.5-	107.5	432.08
110.0	107.5-	112.5	361.52
115.0	112.5-	117.5	291.57
120.0	117.5-	122.5	212.60
125.0	122.5-	127.5	151.50
130.0	127.5-	132.5	109.74
135.0	132.5-	137.5	91.22
140.0	137.5-	142.5	79.42
145.0	142.5-	147.5	67.61
150.0	147.5-	152.5	55.44
155.0	152.5-	157.5	44.25
160.0	157.5-	162.5	34.12
165.0	162.5-	167.5	24.60
170.0	167.5-	172.5	15.99
175.0	172.5-	177.5	7.27
180.0	177.5-	180.0	0.80

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	168	2.9	4.7
0- 40	279	4.9	7.8
0- 60	521	9.1	14.6
0- 90	775	13.6	21.7
90-120	2003	35.1	56.2
90-130	2315	40.6	65.0
90-150	2636	46.3	74.0
90-180	2790	48.9	78.3
0-180	3565	62.5	100.0

Total Luminaire Optical Efficiency = 62.5%

Luminaire Spacing Criterion:

	0 deg	90 deg
	1.18	1.24

Average Luminaire Luminance (cd/sqmeter):

	0	45	90
0	601.96	601.96	601.96
45	542.91	474.39	433.66
50	575.56	474.70	412.77
55	571.02	429.01	401.87
60	572.15	418.37	390.60
65	538.99	393.05	362.92
70	507.46	347.49	341.15
75	548.94	343.08	305.73
80	464.20	302.00	281.24
85	448.44	391.14	647.63

Coefficients of Utilization - Zonal Cavity Method:

pfc = 0.20

pcc	.8	.7	.5	.3	.1	0
pw	.7 .5 .3 .1	.7 .5 .3 .1	.5 .3 .1	.5 .3 .1	.5 .3 .1	0
RCR						
0	63 63 63 63	55 55 55 55	42 42 42	30 30 30	18 18 18	13
1	57 54 51 49	50 47 45 43	36 34 33	25 24 23	15 15 14	10
2	51 47 43 39	45 41 38 35	31 29 27	22 20 19	13 12 12	8
3	47 41 36 33	41 36 32 29	27 25 22	19 17 16	11 10 10	6
4	42 36 31 27	37 32 28 24	24 21 19	17 15 13	10 9 8	5
5	39 32 27 23	34 28 24 21	21 18 16	15 13 11	9 8 7	4
6	36 28 23 20	31 25 21 18	19 16 14	13 11 10	8 7 6	4
7	33 25 20 17	29 22 18 15	17 14 12	12 10 8	7 6 5	3
8	30 23 18 15	27 20 16 13	15 12 10	11 9 7	7 5 4	3
9	28 21 16 13	25 18 14 12	14 11 9	10 8 6	6 5 4	2
10	26 19 14 11	23 17 13 10	13 10 8	9 7 6	5 4 3	2

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